Message

From: Sanga, Ravi [Sanga.Ravi@epa.gov]

Sent: 3/5/2021 11:08:41 PM

To: taca461@ecy.wa.gov; rwar461@ecy.wa.gov; Thomas, Richard (ECY) [RITH461@ECY.WA.GOV]; Asher, Chance (ECY)

[CASH461@ECY.WA.GOV]

CC: Lynch, Kira [lynch.kira@epa.gov]; Blocker, Shawn [Blocker.Shawn@epa.gov]; Allen, Elizabeth

[allen.elizabeth@epa.gov]; Gardiner, William W CIV USARMY CENWS (USA) [William.W.Gardiner@usace.army.mil];

Hoffman, Erika [Hoffman.Erika@epa.gov]; Cerise, Kathy [Cerise.Kathryn@epa.gov]

Subject: FW: Draft East Waterway Anthropogenic Background Evaluation Memo

Attachments: EW Anthro Background Eval 03-05-2021.pdf; EW Anthro Background Eval 03-05-2021.docx; EW AB Appendix

B_03-04-2021.docx; Metadata_Readme_2021-03-04.xlsx; Final_dataset_2021-02-27.xlsx; GreenSuspendedSedAll_2021-01-28.xlsx; GreenSuspendedSedSummary_2021-01-28.xlsx

Tamara and Bob Attached are the Draft EW AB Memo as well as the word version that you can use for commenting and the back up MS Excel tables to verify calculations. Also below is an explanation of why some background numbers for PCBs and As were a bit higher than EPA expected. Please let me know if you have any questions or if a meeting with EPA and the EWG is needed.

From: Greg Brunkhorst <gbrunkhorst@anchorqea.com>

Sent: Friday, March 05, 2021 1:23 PM

To: Sanga, Ravi <Sanga.Ravi@epa.gov>; dberlin@anchorqea.com

Cc: Brick Spangler <Spangler.B@portseattle.org>; florer.j@portseattle.org; debra.williston@kingcounty.gov;

jeff.stern@kingcounty.gov; pete.rude@seattle.gov; allison.crowley@seattle.gov; Merv Coover

<merv.coover@erm.com>; dchiavelli@anchorqea.com; Allen, Elizabeth <allen.elizabeth@epa.gov>; Gardiner, William W

CIV USARMY CENWS (USA) < William.W.Gardiner@usace.army.mil>

Subject: RE: Draft East Waterway Anthropogenic Background Evaluation Memo

Ravi, apologies for not letting you know sooner on these changes.

First, note that the value for PCBs is 31 ug/kg (as shown in the Executive Summary and Table 6-1) rather than 32 ug/kg (as shown in the Section 6 text). This is a typo that has been corrected in the attached PDF file.

Three things changed the total PCBs and arsenic values slightly during the final QC and review process.

- We performed final QC of the USGS percent fines data. In that process, we updated some percent fines sample
 values based on a correspondence with Kathy Conn last month. We were previously pulling from a database file
 provided by USGS, but Kathy pointed us to Table 2 in <u>Suspended-Sediment Transport from the Green-Duwamish
 River to the Lower Duwamish Waterway, Seattle, Washington, 2013–17 (usgs.gov)</u> which contained final
 summarized percent fines data, which differed slightly from the database for several samples.
- 2. We performed the final ProUCL runs on the final dataset and selected statistical treatments that could be consistently applied to the UCLs and UTLs. The notes to Table 6-1 have additional details on the statistical treatments selected.
- 3. We rounded to 2 digits.

Let us know if you would like to discuss further.

Greg

Greg Brunkhorst, PE

ANCHOR QEA, LLC 1119 Pacific Avenue, Suite 1600 Tacoma, WA 98402

C Ex. 6 Personal Privacy (PP)

D 206.971.2668

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From: Dan Berlin < dberlin@anchorqea.com Sent: Thursday, March 04, 2021 5:54 PM To: Sanga, Ravi Sanga, Ravi Sanga, Ravi Sanga, Ravi Sanga, Ravi gberlin@anchorqea.com)

Cc: Brick Spangler < Spangler. B@portseattle.org>; florer.j@portseattle.org; debra.williston@kingcounty.gov;

jeff.stern@kingcounty.gov; pete.rude@seattle.gov; allison.crowley@seattle.gov; Merv Coover

<merv.coover@erm.com>; Greg Brunkhorst <gbrunkhorst@anchorgea.com>; dchiavelli@anchorgea.com

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Ravi, do you also want word and excel files for the memo, or will you be making comments in the pdf or in a letter/table

format? Thanks

Dan

Dan Berlin, PWS

Principal

ANCHOR QEA, LLC

From: Dan Berlin

Sent: Thursday, March 4, 2021 5:52 PM

To: sanga.ravi@epa.gov

Cc: Brick Spangler < Spangler.B@portseattle.org>; Joanna Florer < florer.j@portseattle.org>; Debra Williston - Work < debra.williston@kingcounty.gov>; Jeff Stern < jeff.stern@kingcounty.gov>; Pete Rude < pete.rude@seattle.gov>; Allison

Crowley <allison.crowley@seattle.gov>; Merv Coover <merv.coover@erm.com>; Greg Brunkhorst

<gbrunkhorst@anchorqea.com>; Deborah Chiavelli <dchiavelli@anchorqea.com>

Subject: Draft East Waterway Anthropogenic Background Evaluation Memo

Ravi,

Attached is the draft East Waterway Anthropogenic Background Evaluation Memo. I believe you said you would forward to others for review. Please let us know if you need anything else and when you think you may have comments back for us.

Thanks

Dan

Dan Berlin, PWS

Principal

ANCHOR QEA, LLC 1201 3rd Avenue, Suite 2600 Seattle, WA 98101

T 206.287.9130 D 206.903.3322

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